ASSIGNMENT 2

Textbook Assignment: "Aircraft Rockets and Rocket Launchers," pages 2-1 through 2-32.

2-1. The history of rockets covers a span of what total number of centuries?

1. 3 centuries
2. 5 centuries
3. 7 centuries
4. 8 centuries

2-2. Acceleration and deceleration apply to rocket fuzes that use a gear timing devise in conjunction with what principle?

1. The setback principle
2. The proximity principle
3. The association principle
4. The thrust principle

2-3. What initiating device ignites the propellant grain of a rocket?

1. The motor
2. The igniter
3. The stabilizing rod
4. The venturi-type nozzle

2-4. A rocket misfire that later fires from delayed ignition is known by which of the following terms?

1. Setback
2. Ignition deficit
3. Hangfire
4. Propellant inhibitive

2-5 A situation in which a rocket does NOT fire when the firing circuit is energized is known by which of the following terms?

1. Misfire
2. Setback
3. Hangfire
4. Deflagrate

2-6 What component of a rocket contains the propellant, igniter, and nozzle?

1. The crosshead
2. The nozzle insert
3. The contact disc
4. The motor

2-7 The solid fuel used in a rocket motor is known by which of the following terms?

1. Thrust inducer granules
2. Propellant grain
3. Liquid propellant
4. Acceleration modules

2-8. What term applies to a safety feature designed into a fuze with a gear timing device?

1. Ignition deflector
2. Hangfire stabilizer
3. Setback
4. Retard protector

2-9. The gases produced when a rocket motor propellant burns create what type of force?

1. Thrust
2. Lift
3. Thermal
4. Molecular

2-10. With a venturi nozzle design, the gas pressure inside a rocket motor provides approximately what percentage of the force required to move the container forward?

1. 10%
2. 30%
3. 50%
4. 70%

2-11. A complete round of service rocket ammunition consists of which of the components?

1. The motor only
2. The warhead only
3. The fuze only
4. The motor, warhead, and fuze

2-12. Which of the following rocket components is/are a part of the motor?

1. The fuze
2. The propellant only
3. The nozzle and fin assembly only
4. The propellant and nozzle and fin assembly

2-13. An internal burning, star perforation, double-base, solid propellant is contained in which of the following rocket motors?

1. 2.75 in. only
2. 5.0 in. only
3. 2.75 in. and 5.0 in
4. 6.25 in.

2-14. To restrict or control burning, inhibitors are used on what areas of the propellant grain?

1. The aft end only
2. The forward end only
3. The outer diametrical surface only
4. The aft end, the forward end, and the outer diametrical surface

2-15. Inhibitors cause the propellant grain to burn in which of the following directions?

1. Center to outward only
2. Forward to aft only
3. Center to outward and forward to aft
4. Aft to forward

2-16. What rocket component prevents an unstable burning of the propellant grain?

1. The molded plastic cellulose
2. The stabilizing rod
3. The fin nozzle assembly
4. The spirally wrapped ethyl cellulose tape

2-17. What rocket component ensures that the propellant grain ignites simultaneously forward and aft?

1. The stabilizing rod
2. The igniter
3. The inhibitor
4. The front nozzle assembly

2-18. The igniter in a 5.0-inch rocket motor-contains what total number of squibs?

1. One
2. Two
3. Three
4. Four

2-19. When stowed or shipped separately from the launcher, what component shorts out the Mk 4 igniter firing circuit?

1. The safety pin
2. The shorting cap
3. The fin protector
4. The electrical shunt

2-20. When shipped and stowed separately from a launcher, what safety device protects the igniter firing circuit of the Mk 16 and Mk 71 motors?

1. The metal shielding band
2. The shorting cap
3. The safety pin
4. The molded plastic cellulose

2-21. When the fins on a Mk 4 or Mk 40 motor have opened to the final flight position, what component holds them in this position?

1. The crosshead
2. The nozzle insert
3. The fin retainer
4. The fin actuating mechanism

2-22. The Mk 40 rocket motor nozzle assembly inserts have which of the following design characteristics?

1. They are straight cut
2. The are scarfed
3. They are held in place by a hard rubber retainer
4. The are closed by a thin metal seal and a foam plug

2-23. The fins on a Mk 16 motor are locked in the flight position by what components?

1. The spring-loaded pawls
2. The fin retainers
3. The crossheads
4. The sensing switches

2-24. A Mk 16 motor is designed to be launched from which of the following types of aircraft?

1. High-speed, fixed-wing aircraft
2. Low-speed, fixed-wing aircraft
3. Rotary-wing aircraft
4. High-speed and low-speed fixed wing and rotary wing aircraft

2-25. When NOT installed in a launcher, what device holds the spring-loaded fins of a Mk 71 rocket motor in the closed position?

1. The fin safety pin
2. The fin safety strap
3. The fin retainer band
4. The fin retainer lock

2-26. Rocket warheads are classified in which of the following ways?

1. Flare only
2. Flechette only
3. Smoke only
4. Flare, flechette, and smoke

2-27. Information pertaining to specific rocket components is contained in which of the following NAVAIR manuals?

1. 11-SE-18
2. 11-15-7
3. 11-85-5
4. 16-1-529

2-28. When required, base fuzes are assembled in high-explosive warheads at which of the following locations?

1. The factory
2. The Naval Aviation Depot
3. The station weapons department
4. The organizational weapons department

2-29. A warhead designated WDU-4/A is of (a) what type and (b) fits what diameter rocket?

1. (a) Smoke (b) 5.0 in.
2. (a) Flechette (b) 2.75 in.
3. (a) Flechette (b) 5.0 in.
4. (a) Smoke (b) 2.75 in.

2-30. What type of HE-FRAG warhead is used with a 5.0-inch rocket?

1. Mk 1 Mod 0
2. Mk 32 Mod 0
3. Mk 63 Mod 0
4. Mk 64 Mod 0

2-31. The Mk 34 Mod 0 is what type of warhead?

1. Smoke
2. Flare
3. AT/PERS
4. HE - FRAG

2-32. What type of warhead combines the effectiveness of HE-FRAG and HEAT warheads?

1. GP
2. AT/APERS
3. Flare
4. Flechette

2-33. What type of warhead is a compromise between the armor-piercing and fragmentation designs?

1. HE-FRAG
2. HEAT
3. AT/APERS
4. GP

2-34. What are the two primarY classifications of rocket fuzes?

1. Point-detonating and base-detonating
2. Nose and base
3. Mechanical and electrical
4. Impact and proximity

2-35. A rocket fuze that functions after the rocket strikes the target with enough resistance to cause crushing or disarrangement of actuating parts is known as what type of fuze?

1. A mechanical-time fuze
2. A proximity fuze
3. An impact-firing fuze
4. A deceleration fuze

2-36. An impact-firing fuze is located in what part of a warhead?

1. The nose only
2. The base only
3. The nose or base
4. The tail

2-37. Which of the following fuzes contains a clock mechanism?

1. Mk 93 Mod 0
2. Mk 176 Mod 0
3. Mk 191 Mod 0
4. Mk 193 Mod 0

2-38. What type of rocket fuze is used in the base of a WDU-4/A flechette warhead?

1. An acceleration-deceleration fuze
2. An impact-firing fuze
3. A mechanical-time fuze
4. A proximity fuze

2-39. What type of rocket fuze has an electronic’s package in the forward end?

1. An impact-firing fuze
2. A mechanical-time fuze
3. A proximity fuze
4. An acceleration-deceleration fuze

2-40. A 2.75-inch rocket assembly can be carried and launched from which of the following launcher packages?

1. 4-round packages
2. 7-round packages only
3. 19-round packages only
4. 7-round or 19-round packages

2-41. A low-speed, folding-fin aircraft rocket can NOT be ripple fired for which of the following reasons?

1. Its spin feature
2. Its arming time requirement
3. Its requirement to be carried individually
4. Its requirement to be fired from high altitudes

2-42. All 2.75-inch rockets may be shipped in which of the following configurations?

1. Complete rounds in 7- or 19-tube launchers or in wooden boxes
2. Rocket motors in 7-tube launchers and fuze-warhead combinations in separate shipping containers
3. Separate components in authorized shipping containers
4. Each of the above

2-43. What 5.0-inch rocket motor has one motor for all launch speed applications?

1. Mk 16
2. Mk 32
3. Mk 71
4. Mk 81

2-44. All 5.0-inch rockets should be received through the supply system in which of the following configurations?

1. Rocket motors in a 4-round launcher
2. Separate components in separate shipping containers
3. Fuzes and warheads in separate shipping containers
4. Each of the above

2-45. Aircraft rocket launchers are classified in which of the following ways?

1. 2.75 in. only
2. 5.0 in. only
3. Reusable or nonreusable only
4. 2.75 or 5.0 and reusable or nonreusable

2-46. For detailed information on the LAU-61 and LAU-68 series rocket launchers, you should refer to which of the following NAVAIR publications?

1. 19-100-1
2. 11-75A-61
3. 11-75A-38
4. 11-5E-50

2-47. The LAU-10 series rocket launcher has which of the following types of suspensions?

1. A 12-in. suspension
2. A 14-in. suspension only
3. A 30-in. suspension only
4. A 14-in. and 30-in. suspension

2-48. The frangible fairings on rocket launchers are made of what material?

1. Impregnated molded fiber
2. Aluminum
3. Stainless steel
4. Tin

2-49. What component permits preflight selection of either ripple or single firing of rockets from an aircraft rocket launcher?

1. A breaker switch
2. An intervalometer
3. A mode selector switch
4. An auto-ripple switch

2-50. What component of a rocket launcher is used to prevent loaded rockets from being fired?

1. A safety switch
2. A breaker switch
3. An intervalometer
4. A mode selector switch

2-51. When rocket launchers are loaded, the detent pin should be installed in the breaker switch at which of the following times?

1. Before aircraft flight
2. After the rockets have been loaded
3. Before the launcher is loaded with rocket motors
4. Before the launcher is loaded on the aircraft

2-52. When the mode selector switch in a 19-shot pod is in the single-fire position, what total number of rockets are fired by the intervalometer for each firing pulse it receives?

1. Six
2. Two
3. Eight
4. Four

2-53. In the LAU-10 series rocket launcher, what component retains the rocket motor in the launching tube during shipping, handling, and flight?

1. A spring-loaded detent pawl
2. A detent lift tool
3. A detent lift handle
4. A rocket-firing contact band

2-54. When a rocket is fired from the LAU-10 series launcher, what force causes the detent pawl to release from the rocket detent groove?

1. Spring tension
2. Motor thrust
3. Motor blast
4. Mechanical energy

2-55. Rocket motors should be stowed in the same manner as which of the following powders or explosives?

1. Smokeless powder
2. High explosives
3. Low explosives
4. Black powder

2-56. A rocket motor should NOT be used, if it has been dropped more than what prescribed number of feet?

1. 8 ft
2. 2 ft
3. 10 ft
4. 4 ft

2-57. When, if ever, should you attempt to remove the base fuze from a rocket warhead?

1. After the warhead has been dropped more than 4 feet
2. After external evidence of arming is evident
3. After receiving orders from your supervisor
4. Never

2-58. Fuzes and warheads should be disposed of if they are dropped onto a hard surface more than what prescribed number of feet?

1. 5 ft
2. 2 ft
3. 3 ft
4. 4 ft

2-59. When, if ever, should a loaded rocket launcher be electrically tested?

1. Before the warhead is installed
2. After the fuze is installed
3. When it is being loaded on the aircraft
4. Never

2-60. A minimum distance, as indicated on the unit, must be maintained between a gas turbine exhaust path and the rocket assemblies upon which the exhaust impinges. In the absence of specific information on the unit, what minimum distance must be maintained?

1. 5 ft
2. 10 ft
3. 15 ft
4. 20 ft

2-61. If for any reason you think a fuze is armed, which of the following procedures should you follow?

1. Remove the fuze from the rocket head
2. Treat the fuze as an armed and sensitive fuze
3. Tap the fuze with a rubber mallet
4. Check the fuze with a spectrometer

2-62. Ready-service stowage of assembled rockets is authorized for the 2.75-inch and 5.0-inch aircraft rockets according to which of the following publications?

1. NAVSEA OP 4 only
2. NAVSEA OP 5 only
3. NAVSEA OP 4 and NAVSEA OP 5
4. NAVAIR 01-1A-9

2-63. In an ammunition loading area, smoking should NOT be permitted within what prescribed number of feet?

1. 100 ft
2. 200 ft
3. 300 ft
4. 400 ft